REMARKS

Claims 1-20 were rejected.
Claims 1, 4, 6, 8, 9, 11 and, 13-19 have been cancelled.
Claims 2, 3, 5, 7, 10, 12, and 20 have been amended.
Claim 21 has been added as a new claim.

Applicant thanks the examiner for the telephone interview courteously granted on December 11, 2006. Applicant provided the examiner with a draft claim (similar to new claim 21) and the differences between applicant's claim and the Yamagami reference were discussed. Applicant pointed out to the examiner how the new claim more clearly and specifically defines applicant's novel architecture for a thumb memory drive. The examiner recommended submitting the claim in a formal after final amendment.

Reconsideration and allowance of claims 2, 3, 5, 7, 10, 12, and 20 as amended and consideration and allowance of new claim 21 is requested for the reasons explained below.

CLAIM OBJECTIONS:

The examiner objected to certain informalities in claims 8-14. These informalities have been corrected or eliminated by the above amendments.

Claim Rejection under 35 USC § 112:

The examiner objected to certain claims as indefinite. The indefiniteness issues noted by the examiner have been corrected or eliminated by the above amendments.

CLAIM REJECTIONS under 35 USC § 103

Claims 1-2, 5-10, 12, 14-16 and 19-20 were rejected under 35 USC 103(a) as being unpatentable over U.S. Pat. No. 5,644,539 to Yamagami et al. ("Yamagami") and in further view of U.S. Pub. No. 2004/0044838 A1 to Nickel et al. ("Nickel").

The applicant's invention provides a new architecture for a thumb drive. The claimed architecture utilizes a MRAM (Magnetic Random Access Memory) as a buffer memory and a flash memory as a main memory. The MRAM memory is divided into sectors and a sector of the MRAM memory is exclusively associated with a sector of the flash memory during a write operation. With the architecture defined in applicant's claim, data can be provided to the thumb drive faster than data can be stored in the flash memory and data will not be lost if the thumb drive is disconnected from the host computer prior to the data being stored in the flash memory.

Applicant's sole remaining independent claim specifies (in part):

> "said embedded processor being adapted to exclusively associate one bank of said MRAM with one sector of said flash memory,
>
> multiport control logic which is adapted to direct data received from said USB that is destined for a particular sector of said flash memory to the associated bank of said MRAM memory and being adapted to transfer data from a bank of said MRAM to the associated sector of said flash memory when said bank of MRAM is full,
>
> whereby data can be transferred and stored in said thumb drive at a faster rate than data can be stored in said MRAM memory and data is not lost if said

thumb drive is disconnected from said host processor before data is stored in said flash memory".

Two references were cited by the examiner, hereinafter referred to as Yamagami and Nickel. The Yamagami reference shows a flash memory that includes an area of the flash memory that is used as a buffer. The second reference shows a basic Magnetic Random Access Memory (MRAM).

With respect to the limitation in applicant's claim that call for the exclusive association of a sector of the MRAM memory with a sector of the flash memory, the examiner states:

"The buffer (in the reference) can transfer data to any of the sectors one at a time, therefore the system is capable of associating the buffer with one of the sectors"

Applicant submits that the above statement is pure speculation. The reference just does not teach:

"**exclusively** associating a sector of the MRAM memory with a particular sector of the Flash Memory and temporarily storing data transmitted to the particular sector of the flash memory in the associated sector of the flash memory until the sector is full, and then transferring the entire sector to the flash" (emphasis added).

The examiner also states that:

> "It would have been obvious to one of ordinary skill in the art at the time of the invention for Yamagami to further include Nickel's (MRAM) memory module into his own storage device employing flash memory"

Applicant notes that there are many different ways that MRAM memory could be included in a flash memory thumb drive. For example, the flash memory could be replaced by MRAM memory. Applicant is claiming a particular architecture that uses MRAM memory in a flash dive and the applicant's particular architecture that uses an MRAM buffer in a flash memory thumb drive is not taught or suggested in the references.

For the above reasons, applicant respectfully requests consideration and allowance of claim 21.

The above discussion relates specifically to applicant's sole independent claim 21. Dependent claims 2, 3, 5, 7, 10, 12, and 20 are each directly or through another claim dependent upon independent claim 21. These dependent claims are patentable for the same reason as that explained above relative to their parent claim.

Therefore, applicant respectfully request re-consideration and allowance of dependent claims 2, 3, 5, 7, 10, 12, and 20.

CONCLUSION

For the above described reasons, applicant respectfully requests allowance of claims 2, 3, 5, 7, 10, 12, 20, and 21.

The Examiner is encouraged to telephone the undersigned at (503) 222-3613 if it appears that an interview would be helpful in advancing the case.

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Respectfully submitted,

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